# Basic economic ideas

## Core

On completion of this core section you should know:

- what is meant by scarcity and the inevitability of choices that have to be made by individuals, firms and governments
- what is meant by opportunity cost
- why the basic questions of what, how and for whom production takes place have to be addressed in all economies
- what is meant by factors of production, namely land, labour, capital and enterprise
- what is meant by the division of labour
- the characteristics of a production possibility curve
- how resources are allocated in market, planned and mixed economies
- problems of transition when central planning in an economy is reduced
- the difference between positive and normative statements in Economics
- the functions and characteristics of money.

## One economic problem or many?

Economists have to deal with a whole range of economic problems. You may have seen TV programmes about the misery of unemployment and poverty; you may have read about the difficulties caused by inflation or heard politicians discuss exchange rate crises on the evening news. You may also be aware of debates surrounding issues such as the acute shortage of skilled labour, the benefits of greater liberalisation of international trade, the problems of global warming and the population explosion in many developing economies. Despite this extensive range of issues, which economists are trained to consider, they often talk about 'the economic problem'. This is the fundamental problem from which all others arise. This is the fact that we have scarce resources in relation to unlimited wants. As a result of this problem, which is sometimes called the problem of scarcity, we have to make a choice, and it is the task of the economist to explain and analyse the nature of choice facing economic agents, such as consumers, producers and governments.

The economic problem is: 'scarce resources in relation to unlimited wants'. This problem is summarised in Figure 1.1 (page 16). Because the basic economic problem exists, societies need to confront the following three interrelated questions:

1. **What to produce?**

   Because we cannot produce everything, we need to decide what to produce and in what quantities. We have to choose, for example, whether to produce lots of goods and services, such as food, clothing and vehicles, to improve our standard of living, or whether we need to produce lots of military hardware to improve our defences.

2. **How to produce?**

   This question arises from the basic economic problem that, since resources are scarce in relation to unlimited wants, we need to consider how resources are used so that the best outcome arises. We need to consider how we can get the maximum use out of the resources available to us. It should be noted, however, that other issues besides purely economic concerns should be considered when deciding how to produce. It may be true, for example, that through slavery or forced labour we could produce more goods and services in an economy, but there is a moral objection to such arrangements. Similarly, crop yields could well be
increased through the introduction of genetically modified plants but this may lead to damage to the ecosystem. The decision to maximise output and satisfy more wants would need to consider the full impact on the environment and any potential long-term health risks.

3 For whom to produce?
Because we cannot satisfy all the wants of all the population, decisions have to be taken concerning how many of each person’s wants are to be satisfied. On a broad level we need to decide whether everyone is going to have a more or less equal share of what is produced or whether some will have more than others. In some economies there are deliberate attempts to create a more egalitarian society through policies that redistribute wealth and income from the rich to the poor. This could be achieved through

**Survey on the economics of ageing: the luxury of longer life**

In the world’s rich countries, when you retire at 65 you can expect to live, on average, for another 15 or 20 years. A hundred years ago you would, on average, have been already dead. The late 20th century has brought to many the ultimate gift: the luxury of ageing. But like any luxury, ageing is expensive. Governments are fretting about the cost already, but they also know that far worse is to come. Over the next 30 or 40 years, the demographic changes of longer lives and fewer births will force most countries to rethink in fundamental ways their arrangements for paying for and looking after older people.

Thanks to state transfers, being old in many developed countries no longer means being poor. Old people expect decent pensions to live on; they will make heavier demands on medical
services; some will need expensive nursing care since younger relatives will be concerned about making the most of their own lives. At the same time, the number of people in work – who will have to foot the bill – will stay much the same. Consequently each worker will have to carry a much heavier burden.

Mass survival to a ripe old age will not be confined to rich countries. Most developing countries, whose populations are now much younger than the developed world’s, are starting to age fast. This is particularly true for Caribbean economies such as Barbados as the population pyramids below indicate. The new combination of age and relative poverty will create many problems for such countries. These problems are already familiar to industrialised European countries and the USA. The problem for poorer countries is that they have fewer resources to draw on to tackle these pressures. In addition, ethical problems over the use of scarce resources will be magnified.

Source: The Economist, 27 January 1996 (adapted) and the US Census Bureau, 2006

1 Summarise the projected changes in the population of Barbados from 2000 to 2025.
2 Discuss the likely effects of these changes on decisions concerning:
   a what to produce
   b how to produce
   c for whom to produce.
3 Comment on ‘ethical problems over the use of scarce resources’ facing the government of Barbados in meeting the needs of its changing population.
progressive taxation systems. In other economies there are no such policies and inequalities of wealth and income, usually based upon inheritance, remain extreme. In answering this question, moral aspects of decision making are again important.

**Limited resources**

In Economics we categorise the resources available to us into four types. These are known as factors of production:

1. **Land** This factor is the natural resource. It includes the surface of the earth, lakes, rivers and forests. It also includes mineral deposits below the earth and the climate above.

2. **Labour** This factor is the human resource, the basic determinant of which is the nation's population. Not all of the population are available to work, because some are above or below the working population age and some choose not to work.

3. **Capital** This factor is any man-made aid to production. In this category we would include a simple spade and a complex car-assembly plant. Capital goods help land and labour produce more units of output – they improve the output from land and labour.

   These three factors are organised into units of production by firms.

4. **Enterprise (or entrepreneurship)** This factor carries out two functions. Firstly, the enterprise factor organises the other three factors of production. Secondly, enterprise involves taking the risk of production, which exists in a free enterprise economy. Some firms are small with few resources. The functions of enterprise are undertaken by a single individual, the entrepreneur. In larger, more complex firms the functions are divided, with salaried managers organising the other factors and shareholders taking the risk.

Some economies have a large quantity of high-quality factors of production at their disposal. They can create lots of goods and services to satisfy the wants of their population. They are said to have a good factor endowment. Some economies lack sufficient quantities of one or more of the factors. Developing countries, for example, might have large quantities of land and labour but lack sufficient capital and enterprise. The former planned economies of Eastern Europe, such as Poland, have found it difficult to develop because they have few people with entrepreneurial experience.

**Production and consumption**

Resources are combined in the process of production to create goods and services. Goods and services have the capacity to satisfy wants. The process through which individuals use up goods and services to satisfy wants is known as consumption. Some goods, such as a chocolate bar, are quickly used up to satisfy our wants. Other things satisfy wants over a longer period. These are called consumer durables. Examples of consumer durables include television sets, refrigerators and vehicles.

**Unlimited wants**

We can all identify certain basic wants which must be satisfied if we are to stay alive. These include the obvious essentials of food, shelter and clothing. We might also identify those wants which are clearly less essential but which we think improve our quality of life. Some might include television sets, cars, trips to the cinema and so on. These are sometimes called luxuries, but it is important to remember that what might be a luxury for one individual may be considered an essential for others. This is because we all have a scale of preference with our more urgent wants at the top and the less urgent ones at the bottom. Each individual's scale of preference is a product of a complex set of influences, involving culture, upbringing and life experiences. These together influence our likes and dislikes. Unsurprisingly, since we all have different experiences, there is bound to be great variation between any two individuals' scales of preferences. You may find it interesting to conduct a class exercise in which everyone makes a list of ten wants in descending order of priority. When you compare results you may be surprised to find that, although there may be broad agreement on the first few choices, there is likely to be considerable variation as you compare people's choices over the full list. You may also consider how your list would compare to lists compiled by others with
very different life experiences, such as your teacher, your grandparents or even a student of Economics in another country. A further point to consider is whether you could imagine any end to your list if you were not limited to ten choices. It is important to remember that our wants are continually expanding, developing and changing.

Some wants expand as we grow up, marry and raise a family. Imagine how our housing needs change as we go through this process or how we change from wanting a small car with two doors to wanting a large, family saloon with four doors. Some of our wants develop and expand when we see others around us enjoying goods and services and we feel the need to keep up. Sometimes our wants change as we have new experiences, for example we might decide to go on a diet because we have seen a TV programme about obesity.

All of this points to the fact that we can never imagine a time when all our wants are satisfied. Our wants are continually expanding and changing. Despite the fact that we are continually finding new, more efficient ways to produce more and more goods and services with the resources available to us, we are still faced with the basic economic problem that we have limited resources and unlimited wants. This is sometimes called the problem of scarcity. As a result we have to make choices.

The economic problem described above only occurs when we are dealing with what are known as economic goods. These are goods which have a cost in terms of the real resources used. They are therefore scarce in nature. The opposite are free goods, which have no price attached to them and which require no factors of production for their enjoyment by consumers. Consequently there are few examples, other than say wild berries, fruit and some animals that can be hunted for their meat by anyone who seeks to do so.

Specialisation and exchange

One of the ways in which more goods and services can be produced in the economy is through the process of specialisation. This refers to a situation where individuals and firms, regions and nations concentrate upon producing some goods and services rather than others. This can be clearly illustrated at the individual level. Within the family there may be some specialisation in the performance of household tasks, with one person doing the ironing and gardening while another does the shopping and cooking. At the workplace, of course, the fact that some people are labourers or lorry drivers while others have office jobs is also a reflection of specialisation. At this level, specialisation allows individuals to concentrate upon what they are best at and thus more goods and services will be produced. With specialisation, however, although more is produced, no one is self-sufficient. It becomes necessary to exchange goods and services. As an individual specialises they will produce a surplus beyond their needs, which they can exchange for the surpluses of others.

With the expansion of trade and the development of markets, the benefits of regional and national specialisation became apparent. Surpluses produced by regions and countries were bought and sold, allowing world living standards to rise. Just as individuals concentrated on what they were best at, so did regions and countries.

Specialisation has clearly resulted in a massive expansion in world living standards, but there are dangers too. Given the pace of technological change in modern society, there is always the possibility that the specialist skills and accumulated experience, which any individual has acquired, may become redundant as the economy develops. Individuals need to be flexible and multi-skilled and to be able to move between occupations. At regional and national levels, changes in consumers’ wants can sometimes mean that the goods and services produced in a region or country are no longer required in the same quantity and unemployment can result. Policies then have to be adopted to deal with the economic and social problems that will arise. This issue will be looked at in depth in Chapter 7 Supplement.

The division of labour

With the technical advances of the last few hundred years, production of goods and services has happened on a much bigger scale. The concentration of large numbers of workers within very large production units allowed the process of production to be broken down into a series of tasks. This is called the division of labour. For example, Adam Smith, writing at the end of the eighteenth century, showed how the production of pins would benefit from the application
SELF-ASSESSMENT TASK 1.2

Read the feature below and answer the questions that follow.

**Rich and miserable … or poor and happy?**

It is often said that those who say that money can’t buy you happiness simply don’t know where to shop.

After all, spending money makes you happy, right? Wrong. According to economists it’s a myth that the more we spend, the better we feel. The link between happiness and income/consumption is tenuous.

The West is much richer than it was 50 years ago, but:
- in the USA, reported ‘happiness’ has gone up only fractionally over this period
- in Europe, ‘satisfaction with life’ is actually lower than it was 20 years ago.

This is evidenced in a number of ways. For example:
- in rich countries, male suicide rates have gone up
- unemployment rates have increased – unhappiness is far more prevalent amongst the jobless.

According to Professor Andrew Oswald of Warwick University, money is to blame for this state of affairs. He argues that it buys very little well-being, yet everyone wants more of it. He says it is akin to the spectator who stands up at a football match to get a better view; by the time all of his neighbours are standing up, everybody is no better off than before.

Other economists agree:
- Yew Kwang Ng, a Chinese economist, has argued that the environmental costs of the additional production and consumption, ‘to keep up with the Joneses’, may make people worse off.
- Robert Frank, an American economist, argues that we would all be better off if we agreed to consume less. We could work less, meet other people more regularly and cut down on workplace commuting.

These arguments are unlikely to go down well in emerging economies. It is through growth that people become materially better off. It is surely wrong to deny these benefits to the populations of China, Malaysia, Mauritius, Pakistan, South Africa and so on … or is it better to learn from the mistakes made by countries such as the USA and many EU member states. If ‘yes’, then these economies and others should transfer more resources into things that make people happy such as better education, good health and a decent environment.

*Source: The Guardian, 22 November 1997 (adapted)*

The article expresses the view that, through economic growth, people may actually be worse off.

1. What other examples can you think of which might support the views of these economists?

2. Do you see any conflict between these views and your understanding of the ‘economic problem’?
of the division of labour in a factory. He suggested that pin making could be divided into 18 distinct operations and that, if each employee undertook only one of the operations, production would rise to 5000 pins per employee per day. This was compared to his estimate that each employee would be able to produce only a few dozen each day if they produced pins individually.

Although the division of labour raised output, it often created dissatisfaction in the workforce, who became bored with the monotonous nature of their task. In the United States the process was taken a stage further in the 1920s when Henry Ford introduced conveyor belt production into the car industry. Ford’s method of car production provided the model for much of manufacturing production in the twentieth century. In more recent times the de-humanising impact of production techniques, such as those using a conveyor belt, have been recognised and alternative methods of production have been introduced.

Choice and opportunity cost
Given limited resources and unlimited wants we have to choose which wants to satisfy. The true cost of any choice we make between alternatives is expressed by economists through the notion of opportunity cost. This looks at the cost of our choice in terms of the next best alternative forgone. For example, suppose you were given a $15.00 gift voucher for your birthday. You could either buy a new compact disc which costs $15.00 or two paperback books for $7.50 each. It is clear that you could not have the CD and the books. The opportunity cost of the CD, therefore, is the two paperback books. The value of the concept of opportunity cost is that it brings home to us the real cost of our choices. It can be applied in a variety of contexts in Economics and is helpful for economic decision-makers, such as households, firms and governments.

Production possibility curves
How many goods and services an economy is capable of producing is determined by the quantity and quality of resources available to it, together with the state of technical knowledge. These factors determine an economy’s production possibilities.

Example: an imaginary economy, given its available resources, can produce either military goods or consumer goods or a combination of each. The various possibilities are shown in Table 1.1.

<table>
<thead>
<tr>
<th>Military goods</th>
<th>Consumer goods</th>
</tr>
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<tbody>
<tr>
<td>10000</td>
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<tr>
<td>8000</td>
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<tr>
<td>6000</td>
<td>8000</td>
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<td>16000</td>
</tr>
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<td>0</td>
<td>20000</td>
</tr>
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</table>

Table 1.1 Production possibility schedule 1

It is sometimes useful to illustrate the choices open to an economy by considering the production possibility curve. From the schedule in Table 1.1 we can produce a production possibility curve with military goods plotted on the vertical axis and consumer goods on the horizontal axis.

Figure 1.3 shows all possible combinations of military goods and consumer goods which could be produced given the existing quantity and quality of resources in our imaginary economy and the existing state of technical knowledge. At point a, only military goods are produced, and, at point d, only consumer goods are produced, but between these two extremes lie all the other possibilities. The term production possibility curve emphasises that this shows what levels of output an economy can achieve with its existing resources. It can also be used to show what the economy is not able to achieve. Point Y on the graph represents a combination of military and consumer goods which it is not possible to achieve. It is beyond our production possibilities. Sometimes
the curve is called a **production frontier** because it draws the boundary between what can and cannot be achieved.

Figure 1.3 is also useful in illustrating the real cost to society of unemployed resources. The point $X$ on the diagram represents a production of 4000 military goods and 3000 consumer goods. This is possible to achieve because it is within the production frontier, but it represents a point where some resources are unemployed or not employed effectively. The economy is capable of moving to point $b$ with more military goods and the same number of consumer goods or to point $c$, which would bring more consumer goods and the same quantity of military goods. Alternatively, at a point between $b$ and $c$, the economy can have more of both types of goods. Looking at the diagram in this way illustrates the waste from unemployed resources. We are not satisfying as many of our wants as possible.

A further alternative name for the production possibility curve is the **product transformation curve**. This emphasises a further use for the concept in introductory Economics. In Figure 1.3 as the economy moves along the curve from point $a$ through to point $d$ then a different combination of goods is being chosen. More consumer goods are being produced and fewer military goods. This emphasises that the cost of producing more consumer goods is the military goods which have to be sacrificed. Given the figures, we can calculate the opportunity cost of consumer goods in terms of military goods. A move from $b$ to $c$ on the graph leads to a gain of 8000 consumer goods but we sacrifice 4000 military goods. The opportunity cost of one consumer good is therefore half of a military good. Given the figures, we can calculate the opportunity cost of consumer goods in terms of military goods. A move from $b$ to $c$ on the graph leads to a gain of 8000 consumer goods but we sacrifice 4000 military goods. The opportunity cost of one consumer good is therefore half of a military good.

<table>
<thead>
<tr>
<th>Agricultural products</th>
<th>Manufactured products</th>
</tr>
</thead>
<tbody>
<tr>
<td>700</td>
<td>0</td>
</tr>
<tr>
<td>660</td>
<td>100</td>
</tr>
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<td>600</td>
<td>200</td>
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<td>300</td>
<td>400</td>
</tr>
<tr>
<td>0</td>
<td>500</td>
</tr>
</tbody>
</table>

Table 1.2  Production possibility schedule 2

Assume that initially the economy is producing at point $p$ with 660 agricultural products and 100 manufactured products (see Figure 1.4). Then assume that it is decided to move to point $q$ to gain an extra 100 units of manufactured products. Clearly, resources need to be reallocated from agricultural use to manufacturing. At first the least fertile land will be reallocated and only 60 units of agricultural produce will be sacrificed. This means that each extra consumer good has cost 0.6 of an agricultural good. Now compare this with a movement from $r$ to $s$, to gain an extra 100 manufactured goods we have to sacrifice 200 agricultural goods. This means that one extra manufactured good has cost two agricultural goods. The cost has increased as we have reallocated our resources. This is because at this stage we are
Basic economic ideas

Figure 1.5a shows a situation in which the production possibilities available to an economy have expanded. This is known as economic growth. This could be due to an increase in the quantity and/or the quality of resources available to the economy or an improvement in the state of technology. Here the changes have improved the economy’s ability to produce both agricultural and manufactured products. In Figure 1.5b, however, only the ability to produce agricultural products has been improved. This could perhaps be because there has been a technological breakthrough in producing agricultural products, which does not apply to the production of manufactured products. Nevertheless, this economy’s production possibilities have improved and the curve has shifted outwards from the origin.

The production possibilities could also have declined. This could be because in some way the resources available to the economy have declined. Perhaps some of the economy’s natural resources have become exhausted or the working population is falling. It might also be because the available technology has changed. An example might be the impact of controls on global emissions, which will affect production possibilities as controls become more rigorous.

Making use of production possibility curves

We can use production possibility curves to illustrate some of the issues facing economic decision makers in the real world.
Jam today or more jam tomorrow?
As stated previously, the production possibilities open to an economy are determined by the quantity and quality of resources available. In the process of production, resources are used up and they need to be replaced if production possibilities are to be maintained. The terms *capital consumption* or depreciation describe the using up of capital goods during the process of production. Some resources need to be devoted to the production of capital goods if production possibilities are to be maintained. The creation of capital goods in the process of production is known as *investment*.

This can be defined as ‘any production not for current consumption’. A choice has to be made therefore between producing consumer goods and services or producing capital goods through the process of investment. The more consumer goods and services produced, the higher the current standard of living, but the standard of living might fall in the future if there is a failure to produce sufficient capital goods to replace those worn out in the process of production. In addition, the quality of an economy’s capital goods will not be improved and the full benefits of new technology will not be enjoyed if there is a failure to devote sufficient resources to investment.

Figure 1.6 shows the production possibilities between capital goods and consumer goods.

**SELF-ASSESSMENT TASK 1.3**

Read the feature below and then answer the questions that follow.

**Sweet dreams: high oil prices means sugar could be used as a fuel source**

The Caribbean sugar industry is suddenly looking sweet again after years of decline. That’s because it is a source of ethanol, the alternative fuel that some see as an answer to rocketing oil prices.

Ethanol, a cleaner-burning alternative fuel that can be made from corn or sugar cane, is also drawing renewed government interest and was a key topic for leaders from Central America, Mexico, Colombia and the Dominican Republic when they met last week.